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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,375	11/15/2001	Adrian E. Ong	M-9433 US	4697

7590 08/24/2005

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EXAMINER	
NGUYEN, TUNG X	
ART UNIT	**PAPER NUMBER**
2829	

DATE MAILED: 08/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/003,375	ONG, ADRIAN E.	
	Examiner	Art Unit	
	Tung X. Nguyen	2829	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-17,28 and 33-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-10 and 33-38* is/are allowed.

6)☒ Claim(s) *11-17 and 28* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/03/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 11-17, 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi (u.s.p 4,743,841).

As to claim 11, Takeuchi discloses in Figs. 1-4, an integrated circuit comprising a test pad (32, 33 of figures 1) and plurality of bond pads (31 of figure 1) wherein the bond pad associated with a respective portion of the function circuitry (8, 9 of figure 1); wherein the test pad contacting with a probe needle (col. 4, lines 52-55); and a signal transmitting from the probe to at least one respective portions of functional circuitry to be tested; wherein the bond pad without any contacting with the test probe.

As to claims 12-14, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the signal is input from the probe needle (30, 32, 33 of fig. 1) and demultiplexing and/or multiplexing the input signal into the portions of the function circuitry (8, 9 of figure 1).

As to claim 15, 16, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the test pad (32, 33 of figure 1) is a bonding pad and/or probe pad.

As to claim 17, Takeuchi discloses in Figs. 1-4, an integrated circuit (fig. 1) wherein the test pad is located on the integrated circuit die (32, 33 of fig. 1) remote from the bonding pads (31).

As to claim 28, Takeuchi discloses in Figs. 1-4, an integrated circuit and method for testing function circuitry of an integrated circuit comprising: functional circuits (8, 9 of figure 1); means (30-33 of figure 1) for bonding wires to the functional circuitry (8,9 of figure 1); means (Vcc) for applying one or more test signals to the functional circuitry (8,9 of figure 1), wherein the bond pad (31 of figure 1) are not contacted by probe pins.

Allowable Subject Matter

3. Claims 1-10, and 33-38 are allowed.

As to claim 1-10 and 33-38, the prior art does not teach the integrated circuit having multiplexing circuitry between the probe pad and the bond pads, the multiplexing circuitry for multiplexing signals between the probe pad and each of respective portions of the functional circuitry, thus allowing the respective portions of functional circuitry to be tested using the probe pad and without any contact of the plurality of bond pads by a probe needle; in combination with the other claimed features.

Response to Arguments

4. Applicant's arguments filed 6/03/05 have been fully considered but they are not persuasive.

In re pages 7-9, as to claims 11-17, to Applicant argues that Takeuchi does not disclose "conveying a signal between the probe needle and at least one respective portion of the functional circuitry via the test pad, thus allowing the respective portions of

functional circuitry to be tested using the test pad and without any contact of the plurality of bond pads by the probe needle"

In response, the Examiner respectfully disagrees with Applicant about the issue for the following reasons:

It is clearly show in the figure 1, the test pad 31-33 for testing the circuit 9, 71, and 72 by using the test probe (col. 5, lines 54-56) and wherein the bond pad without any contacting with the test probe (col. 6, lines 5-16); Therefore, Takeuchi does teach the step of conveying a signal between the probe needle (col. 5, lines 54-56) and at least one respective portion of the functional circuitry (9, 71, 72 of figure 1) via the test pad (31-33), thus allowing the respective portions of functional circuitry to be tested using the test pad and without any contact of the plurality of bond pads by the probe needle (col. 5, lines 54-56, and col. 6, lines 5-16).

In re pages 8-9, as to claim 28, to Applicant argues that Takeuchi does not disclose "means for applying one or more test signals to the functional circuitry, such that the means for bonding are not contacted by probe pins when the integrated circuit die is tested".

In response, the Examiner respectfully disagrees with Applicant about the issue for the following reasons:

It is clearly that means for applying one or more test signals to the functional circuitry (via Vcc of figure 1); and the bonding pads 11 and 12 of figure 3 are used for supplying the power of Vcc and Vee to the normal circuit (col. 6, lines 46-50) are not

contacted by the probe pins when the integrated circuit die (circuit 9, 71, 72 of figure 1) is tested.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung X. Nguyen whose telephone number is (571) 272-1967. The examiner can normally be reached on 8:30am-5:00pm M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (571) 272-2034. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TN
8/18/05

MINH NHUT TANG
PRIMARY EXAMINER
8/22/05